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Attorney Docket No. 00-5016
Application Serial No. 09/772,759

IN THE CLAIMS

The following is a complete listing of the claims, and replaces all earlier versions and listings.

1. (currently amended) A method of presenting to a user a visual representation of a frame laid out in a matrix of blocks, each block laid out in a matrix of pins, the frame resident at a central office of a telecommunications system, the method comprising:
maintaining in a database data describing the frame, including (a) data uniquely identifying blocks in the frame, and (b) data describing a current condition of the frame, including data indicating which pins in the frame are currently in use and which pins in the frame are currently available for use;

~~accessing [[a]] the database including data as to determine a current condition of the frame, the data including data indicating which pins in the frame are currently in use and which pins in the frame are available for use;~~

displaying, based on the accessed data, a graphical representation of the frame, the graphical representation including a visual indication of the current condition of the frame including a visual indication of a plurality of pins currently in use and a visual indication of a plurality of pins available for use; and

allowing a user to interface with the graphical representation to effect a mapping between available pins on the frame and telecommunications lines leading to and from the frame.

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2. (original) A method according to claim 1, wherein the displaying step displays the graphical representation of the frame in response to the user specifying a particular frame from a particular central office in the telecommunications system.
3. (original) A method according to claim 2, wherein the frame is made up of constituent blocks and the displaying step may display a particular block from a specified frame in response to the user's entry of coordinates for the block.
4. (original) A method according to claim 1, wherein the allowing step further allows the user to modify attributes of the selected frame.
5. (original) A method according to claim 1, wherein the graphical representation of the frame displayed at the displaying step includes a first Web page showing a frame of a selected central office laid out as a matrix of constituent blocks.
6. (original) A method according to claim 5, wherein the graphical representation of the frame displayed at the displaying step includes a second Web page showing available pins on any block in the matrix, and allows the user to search for a block having a number of available pins entered by the user.

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7. (previously presented) A method according to claim 6, wherein the allowing step allows the user to assign a jumper from a port on a switching card to an available pin.

8. (original) A method according to claim 1, further comprising the step of allowing the user to add a new frame at a selected central office of the telecommunications system.

9. (original) A method according to claim 8, wherein the user can specify a number of modules, shelves, and blocks per shelf for an added new frame.

10. (currently amended) A program storage device having computer-readable code embedded therein for a host computer on a network, the host computer being operable to communicate with a client computer on the network and having access to a database of information relating to ~~the condition of~~ one or more frames laid out in a matrix of blocks, each block laid out in a matrix of pins, the one or more frames located at telecommunications system central offices, the code comprising:

code for processing requests from the client computer for ~~information~~ data relating to one or more frames;

code for initiating database interface code, the database interface code retrieving the requested data from the database, the database maintaining data describing one or

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more frames, including (a) data uniquely identifying blocks in the one or more frames, and (b) data describing a current condition of the one or more frames, including data indicating which pins in the one or more frames are currently in use and which pins in the one of more frames are currently available for use, the requested data including data indicating which pins in the one or more frames are currently in use and which pins in the one or more frames are available for use;
code for formatting a graphical representation of a current condition of the one or more frames in the request, the graphical representation including a visual indication of a plurality of pins currently in use and a visual indication of a plurality of pins ~~on~~ available for use;
and

code for communicating the formatted graphical representation of the one or more frames to the client computer and for allowing a user of the client computer to interface with the graphical representation to effect a mapping between available pins on the one or more frames and telecommunications lines leading to and from the one or more frames.

11. (original) A program storage device according to claim 10, wherein the code further comprises the database interface code, and the database interface code comprises a common gateway interface (CGI) application.

12. (original) A program storage device according to claim 10, wherein the code further comprises the database interface code, and the database interface code comprises a Java servlet.

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13. (original) A program storage device according to claim 10, wherein the graphical representation of the frame is generated in response to the user specifying a particular frame from a particular central office in the telecommunications system.
14. (original) A program storage device according to claim 13, wherein the frame is made up of constituent blocks and the graphical representation of the frame may show a particular block from a specified frame in response to the user's entry of coordinates for the block.
15. (original) A program storage device according to claim 10, wherein the code for communicating further allows the user to modify attributes of the selected frame.
16. (original) A program storage device according to claim 10, wherein the graphical representation of the frame includes a first Web page showing a frame of a selected central office laid out as a matrix of constituent blocks.
17. (original) A program storage device according to claim 16, wherein the graphical representation of the frame includes a second Web page showing available pins on any block in the matrix, and allowing the user to search for a block having a number of available pins entered by the user.

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18. (previously presented) A program storage device according to claim 17, wherein the code for communicating allows the user to assign a jumper from a port on a switching card to an available pin.

19. (original) A program storage device according to claim 10, further comprising code for allowing the user to add a new frame at a selected central office of the telecommunications system.

20. (original) A program storage device according to claim 19, wherein the user can specify a number of modules, shelves, and blocks per shelf for an added new frame.

21. (currently amended) A server computer on a network, the server computer having access to a database of information relating to ~~the condition of~~ one or more frames laid out in a matrix of blocks, each block laid out in a matrix of pins, the one or more frames located at telecommunications central offices, the server computer being operable to:

communicate with a client computer on the network;

process requests from the client computer for ~~information~~ data relating to one or more frames including data indicating which pins in the one or more frames are currently in use and which pins in the one or more frames are available for use;

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initiate database interface code, the database interface code retrieving the requested data from the database, the database maintaining data describing the one or more frames, including (a) data uniquely identifying blocks in the one or more frames and (b) data describing a current condition of the one or more frames, including data indicating which pins in the one or more frames are currently in use and which pins in the one or more frames are currently available for use;

and format a graphical representation of a current condition of the one or more frames in the request, the graphical representation including a visual indication of a plurality of pins currently in use and a visual indication of a plurality of pins available for use; and

communicate the formatted graphical representation of the one or more frames to the client computer and allow a user of the client computer to interface with the graphical representation to effect a mapping between available pins on the one or more frames and telecommunications lines leading to and from the one or more frames.

22. (original) A server according to claim 21, wherein the database interface code comprises a common gateway interface (CGI) application.

23. (original) A server according to claim 21, wherein the database interface code comprises a Java servlet.

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24. (original) A server according to claim 21, wherein the graphical representation of the frame is generated in response to the user specifying a particular frame from a particular central office in the telecommunications system.

25. (original) A server according to claim 24, wherein the frame is made up of constituent blocks and the graphical representation of the frame shows a particular block from a specified frame in response to the user's entry of coordinates for the block.

26. (original) A server according to claim 21, wherein the server is further operable to allow the user to modify attributes of the selected frame.

27. (original) A server according to claim 21, wherein the graphical representation of the frame includes a first Web page showing a frame of a selected central office laid out as a matrix of constituent blocks.

28. (original) A server according to claim 27, wherein the graphical representation of the frame includes a second Web page showing available pins on any block in the matrix, and allowing the user to search for a block having a number of available pins entered by the user.

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29. (previously presented) A server according to claim 28, wherein the server is operable to allow the user to assign a jumper from a port on a switching card to an available pin.

30. (original) A server according to claim 21, the server further being operable to allow the user to add a new frame at a selected central office of the telecommunications system.

31. (original) A server according to claim 30, wherein the user can specify a number of modules, shelves, and blocks per shelf for an added new frame.

32. (currently amended) ~~Computer~~ A program storage device having embedded therein computer code running on for a client computer on a network, the code comprising:

code for communicating with a server on the network, the server having access to a database of information relating to ~~the condition of~~ one or more frames located at telecommunications central offices, each frame laid out in a matrix of blocks, each block laid out in a matrix of pins, the database ~~including~~ maintaining data ~~indicating~~ describing the one or more frames, including (a) data uniquely identifying blocks in the one or more frames, and (b) data describing a current condition of the one or more frames, including data indicating which pins in

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the one or more frames are currently in use and which pins in the one or more frames are available for use;

code for sending requests to the server for information relating to one or more frames, the requests causing the server to initiate execution of database interface code, the database interface code retrieving the requested data from the database and formatting a graphical representation of a current condition of the one or more frames in the request, the graphical representation including a visual indication of a plurality of pins currently in use and a plurality of pins available for use;

code for receiving the formatted graphical representation of the one or more frames from the server, the received graphical representation allowing a user of the client computer to interface with the graphical representation to effect a mapping between available pins on the one or more frames and telecommunications lines leading to and from the one or more frames.

33. (currently amended) ~~Computer code~~ A program storage device according to claim 32, wherein the graphical representation of the frame includes a first Web page showing a frame of a selected central office laid out as a matrix of constituent blocks.

34. (currently amended) ~~Computer code~~ A program storage device according to claim 33, wherein the graphical representation of the frame includes a second Web page

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showing available pins on any block in the matrix, and allowing the user to search for a block having a number of available pins entered by the user.

35. (currently amended) ~~Computer code~~ A program storage device according to claim 34, wherein the received graphical representation allows the user to assign a jumper from a port on a switching card to an available pin.

36. (currently amended) ~~Computer code~~ A program storage device according to claim 32, wherein the received graphical representation allows the user to add a new frame at a selected central office of the telecommunications system.

37. (currently amended) ~~Computer code~~ A program storage device according to claim 36, wherein the user can specify a number of modules, shelves, and blocks per shelf for an added new frame.

38. (currently amended) An apparatus for presenting to a user a visual representation of a frame laid out in a matrix of blocks, each block laid out in a matrix of pins, the frame resident at a central office of a telecommunications system, the apparatus comprising:
means for accessing a database ~~including~~ maintaining data ~~as to a current condition of~~ describing the frame, ~~the data~~ including (a) data uniquely identifying blocks in the

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frame, and (b) data describing a current condition of the frame, including data indicating which pins in the frame are currently in use and which pins in the frame are available for use;

means for displaying, based on the accessed data, a graphical representation of the frame, the graphical representation including a visual indication of the current condition of the frame including a visual indication of a plurality of pins currently in use and a visual indication of a plurality of pins available for use; and

means for allowing a user to interface with the graphical representation to effect a mapping between available pins on the frame and telecommunications lines leading to and from the frame.

39. (original) An apparatus according to claim 38, wherein the displaying step displays the graphical representation of the frame in response to the user specifying a particular frame from a particular central office in the telecommunications system.

40. (original) An apparatus according to claim 39, wherein the frame is made up of constituent blocks and the means for displaying may display a particular block from a specified frame in response to the user's entry of coordinates for the block.

41. (original) An apparatus according to claim 38, wherein the means for allowing is further operable to allow the user to modify attributes of the selected frame.

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42. (original) An apparatus according to claim 38, wherein the graphical representation of the frame displayed by the means for displaying includes a first Web page showing a frame of a selected central office laid out as a matrix of constituent blocks.

43. (original) An apparatus according to claim 42, wherein the graphical representation of the frame displayed by the means for displaying includes a second Web page showing available pins on any block in the matrix, and allows the user to search for a block having a number of available pins entered by the user.

44. (previously presented) An apparatus according to claim 43, wherein the means for allowing allows the user to assign a jumper from a port on a switching card to an available pin.

45. (original) An apparatus according to claim 38, further comprising means for allowing the user to add a new frame at a selected central office of the telecommunications system.

46. (original) An apparatus according to claim 45, wherein the user can specify a number of modules, shelves, and blocks per shelf for an added new frame.

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47. (previously presented) A method according to claim 6, wherein the allowing step allows the user to assign a jumper from an available pin to an outside plant feeder.

48. (previously presented) A program storage device according to claim 17, wherein the code for communicating allows the user to assign a jumper from an available pin to an outside plant feeder.

49. (previously presented) A server according to claim 28, wherein the server is operable to allow the user to assign a jumper from an available pin to an outside plant feeder.

50. (currently amended) ~~Computer code~~ A program storage device according to claim 34, wherein the received graphical representation allows the user to assign a jumper from an available pin to an outside plant feeder.

51. (previously presented) An apparatus according to claim 43, wherein the means for allowing allows the user to assign a jumper from an available pin to an outside plant feeder.

52. (new) A method according to claim 1, wherein the database identifies blocks in the frame using a triple for each identified block, the triple indicating for each identified block a module, a shelf within the module and a block within the shelf in a case where

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the frame is a single-sided frame and a side, a vertical coordinate and a horizontal coordinate in a case where the frame is a double-sided frame.

53. (new) A program storage device according to claim 10, wherein the database identifies blocks in the one or more frames using a triple for each identified block, the triple indicating for each identified block a module, a shelf within the module and a block within the shelf in a case where the frame is a single-sided frame and a side, a vertical coordinate and a horizontal coordinate in a case where the frame is a double-sided frame.

54. (new) A server according to claim 21, wherein the database identifies blocks in the one or more frames using a triple for each identified block, the triple indicating for each identified block a module, a shelf within the module and a block within the shelf in a case where the frame is a single-sided frame and a side, a vertical coordinate and a horizontal coordinate in a case where the frame is a double-sided frame.

55. (new) A program storage device according to claim 32, wherein the database identifies blocks in the one or more frames using a triple for each identified block, the triple indicating for each identified block a module, a shelf within the module and a block within the shelf in a case where the frame is a single-sided frame and a side, a vertical coordinate and a horizontal coordinate in a case where the frame is a double-sided frame

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56. (new) An apparatus according to claim 38, wherein the database identifies blocks in the frame using a triple for each identified block, the triple indicating for each identified block a module, a shelf within the module and a block within the shelf in a case where the frame is a single-sided frame and a side, a vertical coordinate and a horizontal coordinate in a case where the frame is a double sided-frame.